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The Zygaenidae, Hyblaeidae, Thyrididae, Limacodidae, Uraniidae, Sphingidae, Arctiidae and Nolinae (Noctuidae) of the Ogasawara Islands, with additions and corrections to the Geometridae and Pyralidae (Lepidoptera)

(Moths of Ogasawara (Bonin) Islands, Part IV)

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Abstract Various families of "Bombyces & Sphinges" are listed, including descriptions of *Banisia whalleyi* sp. nov. (Thyrididae) and *Gathynia fumicosta islandica* subsp. nov. (Uraniidae). Additional information on the Geometridae and Pyralidae is presented.

Key words Ogasawara Islands, Bombyces, Sphinges, endemic species, nominotypical sub-species.

In Part IV of Moths of the Ogasawara Islands, in this paper various families belonging to "Bombyces & Sphinges" *sensu* Seitz, *The Macrolepidoptera of the World* or *Die Gross-Schmetterlinge der Erde* will be dealt with. At the same time additional information and corrections to the Geometridae (Part II) and Pyralidae (Part III) will be presented. Colour photographs of many species, including endemic ones, listed and newly described in previous and present parts will be shown.

All the type material and other specimens recorded in Part II, III and IV will be deposited in The Natural History Museum, London, excepting where indicated to the contrary.

Abbreviations. BMH: Bishop Museum, Honolulu. FFPRI: Forestry and Forest Products Research Institute, Ibaraki. HUS: Hokkaido University, Sapporo. OSBTAS: Ogasawara Subtropical Branch of Tokyo Metropolitan Agric. Exp. Statn.

Family ZYGAENIDAE

Subfamily Procridinae

***Artona (Balataea) martini* Efetov**

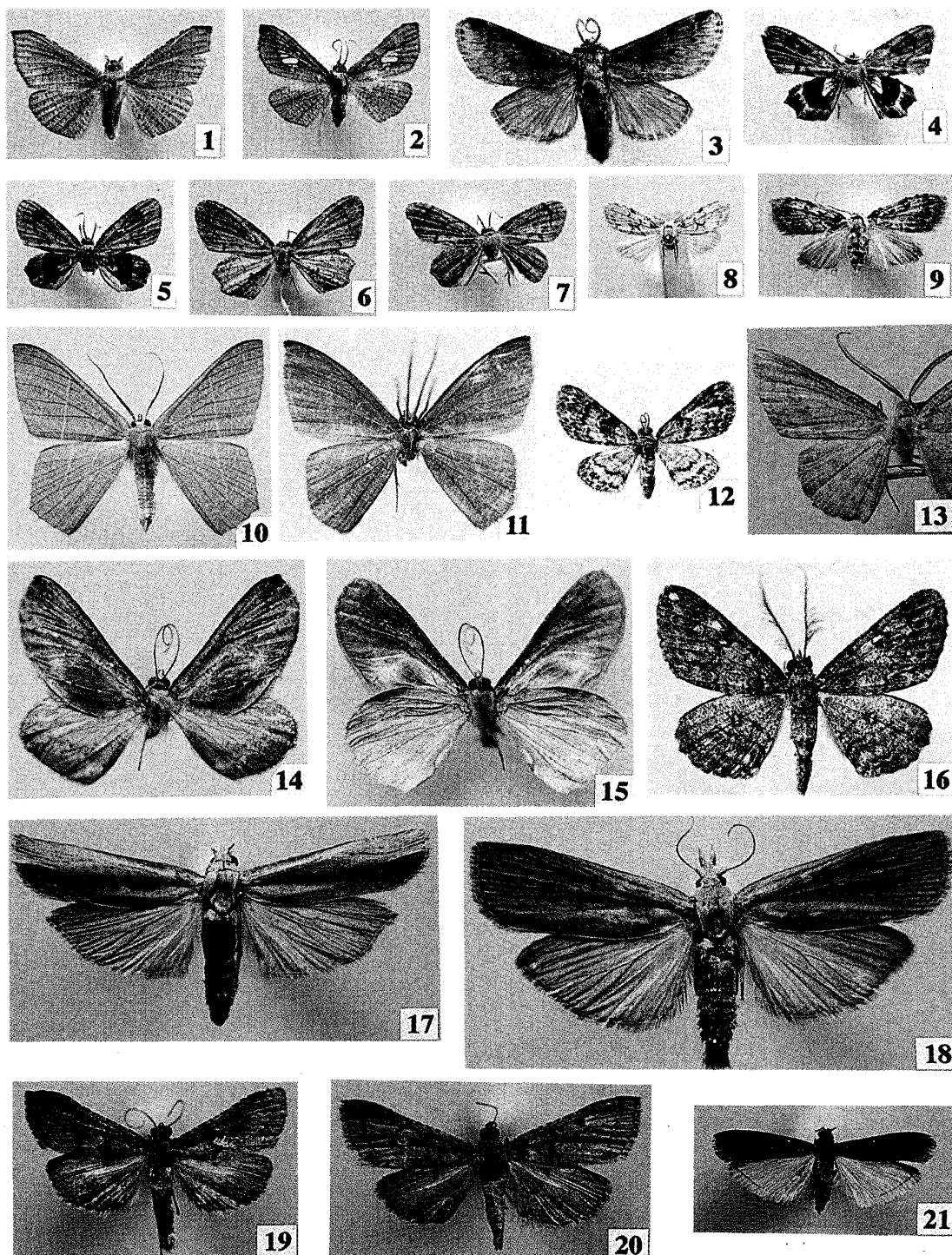
Artona (Balataea) martini Efetov, 1997: 170, figs 7-12.

Balataea funeralis: Inoue, 1982: 294, pl. 32: 21, 22, *nec* Butler.

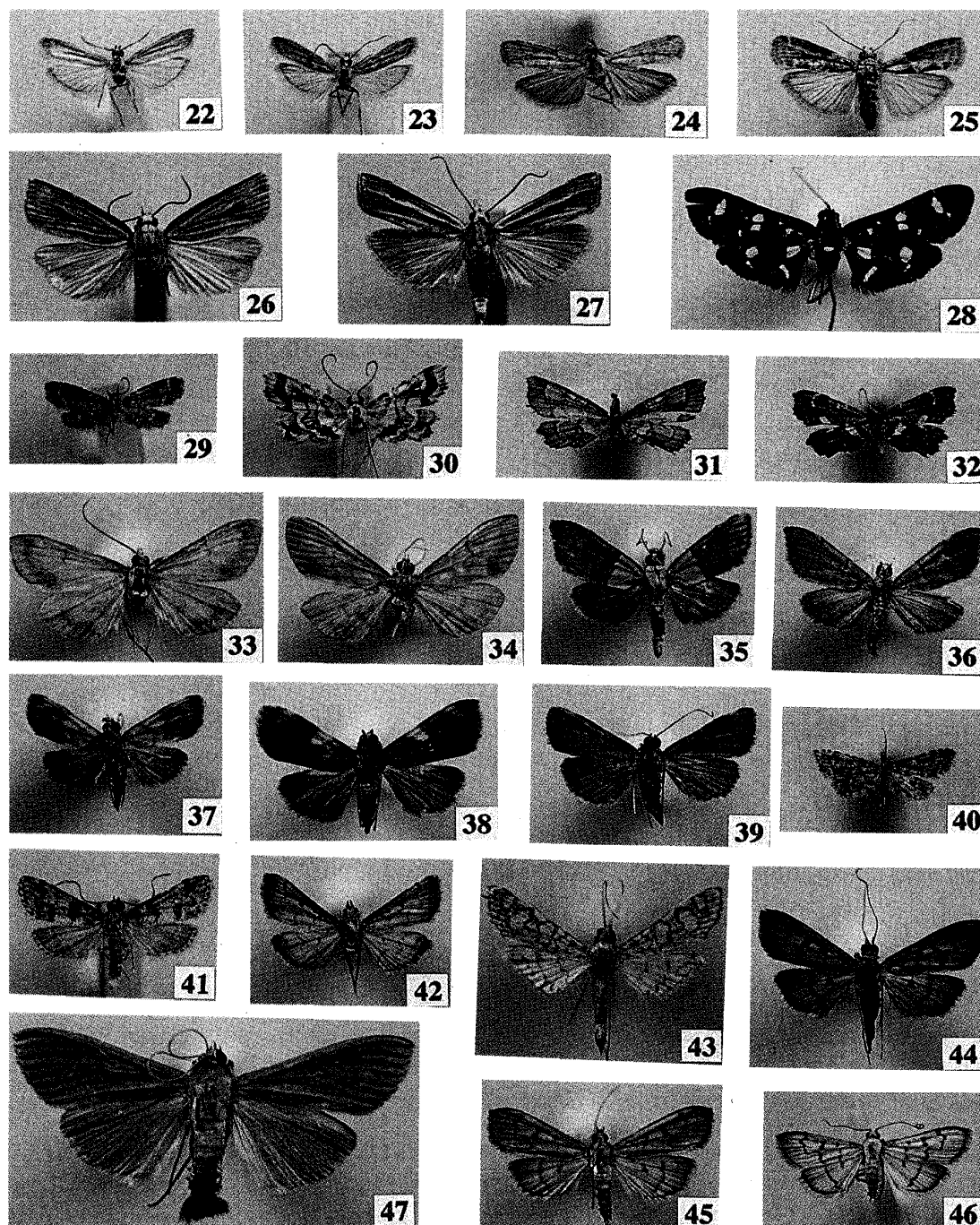
Specimens examined. Chichijima: Komagari, v. 1987, 1 ♀ (S. Koyano); *ditto*, 5. iv. 1995, 1 ♀; Kita-fukurozawa, 7. iv. 1995, 1 ♀ (T. Ohbayashi), OSBTAS.

Recently two closely similar species of *Artona* in Japan were separated and one of them was described as new by Efetov (1997). Sugi (1997), redescribed them in Japanese with good illustrations of moths and genitalia. Monzen (1951: 25) first recorded it as *Artona funeralis* from Ogasawara without other data. This species was apparently introduced into Ogasawara by human activities.

Distribution. Ogasawara (Chichijima), Japan (Honshu, Kyushu), Taiwan, China, Vietnam.



Figs 1-21. Moths of Ogasawara Islands. 1. *Banisia whalleyi* sp. nov. Holotype, ♂. 2. *B. myrsusalis elaralis* (Walker), ♀. 3. *Belippa boninensis* (Matsumura), ♂. 4. *Gathynia fumicosta islandica* subsp. nov. Paratype, ♀. 5. *Ditto*. Holotype, ♂. 6. *Ditto*. Paratype, ♀. 7. *Ditto*. Paratype, ♂. 8. *Nola infralba* Inoue, ♂. 9. *Ditto*, ♀. 10. *Thalassodes superacutipennis* Inoue. Holotype, ♂. 11. *Pelagodes ogasawarensis* (Inoue). Holotype, ♂. 12. *Gymnoscelis boninensis* Inoue. Holotype, ♂. 13. *Pseudonadagara hepatica* Inoue. Holotype, ♂. 14. *Boninnadagara crinomorpha* Inoue. Holotype, ♂. 15. *Ditto*, under surface. 16. *Cleora ogasawarensis* Inoue. Holotype, ♂. 17. *Thalamorrhyncha cramboides* Inoue. Holotype, ♂. 18. *Ditto*. Paratype, ♀. 19. *Endotricha pulverealis* Hampson, ♂. 20. *Ditto*, ♀. 21. *Faveria atratella* (Ragonot), ♀.



Figs 22-47. Moths of Ogasawara Islands. 22. *Eucampyla estriella* Yamanaka, ♀. 23. *Cryptoblabes gnidiella* (Millière), ♀. 24. *Microthrix inconspicuell*a (Ragonot), ♀. 25. *Indomyrlaea eugraphella* (Ragonot), ♀. 26. *Calamotropha albistrigellus* (Hampson), ♂. 27. *Crambus boninellus* Shibuya, ♂. 28. *Bocchoris albipunctalis* Shibuya, ♂. 29. *Sufetula minuscula* Inoue. Paratype, ♂. 30. *Musotima kumatai* Inoue. Holotype, ♂. 31. *Ditto*, ♂. 32. *Ditto*, ♂. 33. *Pagyda citrinellus* Inoue. Holotype, ♂. 34. *Ditto*. Paratype, ♀. 35. *Agrotera flavobasalis* Inoue. Holotype, ♂. 36. *Ditto*. Paratype, ♀. 37. *Rehimena variegata* Inoue. Holotype, ♂. 38. *Ditto*. Paratype, ♀. 39. *Ditto*. Paratype, ♀. 40. *Nacoleia gressitti* Inoue, ♀. 41. *Metasia bilineatella* Inoue. Holotype, ♂. 42. *Herpetogramma submarginalis* (Swinhoe), ♀. 43. *Glyphodes fenestrata* Inoue. Holotype, ♂. 44. *Erpis pacifica pacifica* Hampson, ♀. 45. *Ditto*, ♀. 46. *E. pacifica iwojimensis* Inoue. Paratype, ♀. 47. *Parotis ogasawarensis* (Shibuya), ♂.

Family HYBLAEIDAE

Hyblaea puera (Cramer)

A female specimen from Chichijima was illustrated by Sugi (1982) in Inoue *et al.*, *Moths of Japan*, pl. 35 : 14.

Specimens examined. Chichijima : Komagari, 3. vi. 1997, 4 exs, from larvae on *Vitex rotundifolia* (Verbenaceae) (T. Ohbayashi), OSBTAS.

First recorded from Ogasawara by Nakane (1970 : 18) without other data.

Distribution. Ogasawara (Chichijima), SW Japan, Taiwan, Philippines, Micronesia, widespread in tropical areas of the world.

Family THYRIDIDAE

Subfamily Striglininae

Banisia myrsusalis elaralis (Walker) (Fig. 2)

Pyrallis elaralis Walker, 1859, *J. Proc. Linn. Soc. Lond.* **3** : 901. [Ceylon]

Banisia myrsusalis elaralis : Whalley, 1976 : 156, pl. 13 : 126 ; pl. 39 : 302 ; pl. 52 : 415 ; pl. 67 : 590 ; Inoue, 1982 : 304, pl. 35 : 35.

Specimens examined. Chichijima : Mt Mikazuki, 16. vi. 1979, 1 ♀ (N. Watanabe). Hahajima : Kitamura, 28. ix. 1977, 1 ♀ (Y. Watanabe) ; Ontake-jinja, 19. vi. 1979, 1 ♀ (N. Watanabe).

Distribution. Ogasawara (Chichijima, Hahajima), widely spread in the Aethiopian, Oriental and Australian Regions.

***Banisia whalleyi* sp. nov.** (Fig. 1)

Banisia plagiata subsp. : Whalley, 1976 : 160, *nec* Butler.

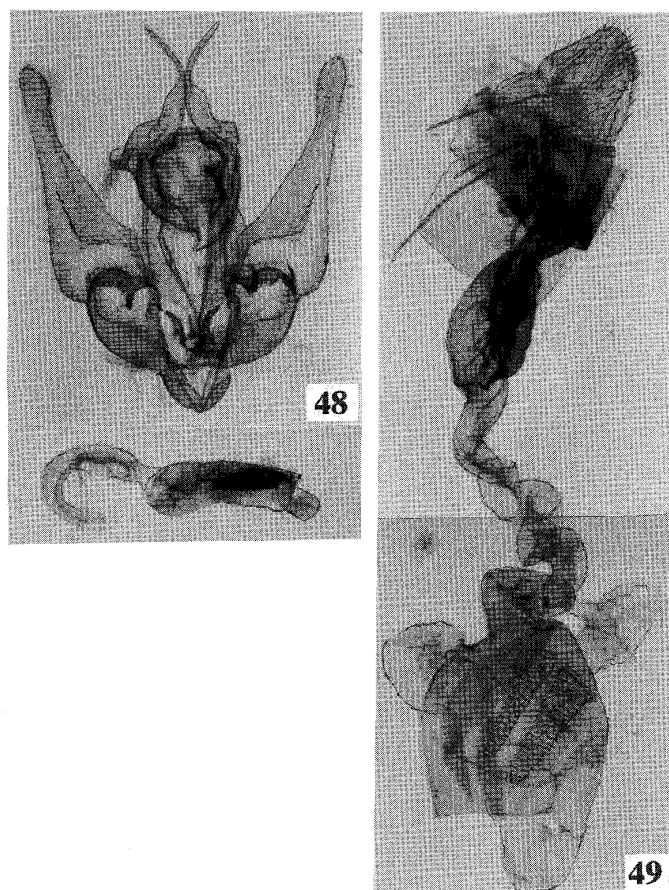
Usually smaller than *plagiata* ; forewing without hyaline white spots, under surface more weakly marked. Specimens collected in January to April are larger and usually more reddish than those secured in June to September.

Male genitalia (Fig. 48). Very similar to *plagiata*, but sacculus process (after Whalley, 1976) strongly serrated at ventral margin, with a small stick-like process at basal area. Female genitalia (Fig. 49). Colliculum granulated, cephalic margin flat, not bilobed as in *plagiata*, ductus bursae much broader than in *plagiata* at basal (or caudal) one-third. Signa consisting of a pair of scobinate bands, occupying nearly half length of corpus bursae.

Specimens examined. Holotype, ♂ : Omura, Chichijima, 2. iv. 1971 (K. Suzuki). Paratypes : 42 specimens from Chichijima and Hahajima. 3 specimens in BMH and 1 specimen in HUS.

Distribution. Ogasawara (Chichijima, Hahajima).

Although Whalley (1976) considered the population from Ogasawara as a subspecies of *B. plagiata* (Butler), I described it as a new species both from the external and anatomical



Figs 48–49. *Banisia whalleyi* sp. nov. 48. Male genitalia (H. Inoue Slide 16433). 49. Female genitalia (HI Slide 16434).

features.

Family LIMACODIDAE

Belippa boninensis (Matsumura), **comb. nov.** (Fig. 3)

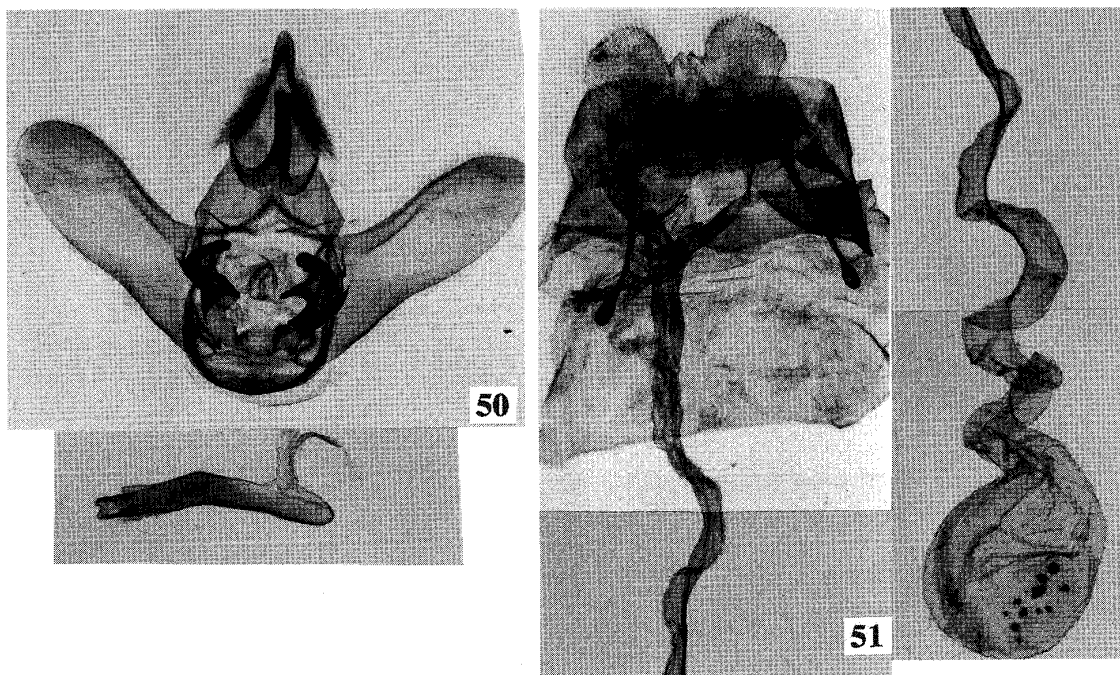
Contheyloides boninensis Matsumura, 1931a: 104, pl. 2: 23; *id.*, 1931b: 999, fig.

Specimens examined. Holotype, ♂: Chichijima, HUS. 29 specimens from Chichijima and Hahajima, collected in April, May, June, August and September.

Usually specimens secured in spring are paler and browner than those collected in summer.

This endemic species was described as a new genus and species based on a single male from Chichijima. I consider *Contheyloides* Matsumura, 1931, a monobasic genus, a junior synonym of *Belippa* Walker, 1865, type species: *Belippa horrida* Walker, 1865 (**syn. nov.**), from the shape of wings, the maculation of forewing and the genitalia (Figs 50, 51).

Distribution. Ogasawara (Chichijima, Hahajima).



Figs 50–51. *Belippa ogasawarensis* (Matsumura). 50. Male genitalia (HI Slide 16482).
50. Female genitalia (HI Slide 16481).

Family URANIIDAE

Subfamily Epipleminae

Gathynia fumicosta islandica subsp. nov. (Figs 4–7)

The nominotypical subspecies of *fumicosta* Warren, 1896 (Inoue, 1982 : 578, pl. 110 : 37–39) is constant in colour and maculation of wings, but the Ogasawara population is very variable. Many specimens are much darker and sometimes have the hindwing with a pale yellow basal patch and postmedian fascia, filled-in with black between them. Rarely almost identical with the nominotypical subspecies, but in general the ground colour is darker.

Specimens examined. Holotype, ♂ : Tamagawa-dam, Hyogidaira, Hahajima, 29. vi. 1979 (H. Nakajima). Paratypes. Chichijima : Nagatani, 25. vii. 1979, 1 ♂ 1 ♀ (H. Nakajima). Hahajima : Koromodate, near Kita-ko, 21–22. vi. 1979, 1 ♀ (N. Watanabe); data as holotype, 1 ♀ ; Chibusarindo, Hyogidaira, 3. viii. 1979, 1 ♂ (H. Nakajima). Chibusayama, 300–462 m, 17–20. viii. 1980, 3 ♂ 3 ♀ (S.L. Montgomery), BMH.

Distribution of the subspecies. Ogasawara (Chichijima, Hahajima).

Family SPHINGIDAE

For distribution and other information on the following species, see Inoue, Kennett & Kitching, [1996].

Subfamily Sphinginae

***Agrius convolvuli* (Linnaeus)**

Specimens examined. Chichijima : Omura, 8. x. 1972, 1 ♂ ; 16. x. 1972, 1 ♀ (Y. Kusui).
Watanabe *et al.*, (1980 : 99) recorded both from Chichijima and Hahajima.

Subfamily Macroglossinae

***Daphnis nerii* (Linnaeus)**

Daphnis nerii : Ohbayashi, 1998 : 390, fig. 1.

Recently Ohbayashi recorded one female from Chichijima collected on 16. ix. 1997. He supposes that it was brought into the island from SE Asia by a typhoon which passed close to Ogasawara on September 2 of that year.

***Macroglossum pyrrhosticta* Butler**

?*Macroglossum poecilum* : Matsumura, 1931b : 605 (Ogasawara, as *poecilus*) ; Monzen, 1951 : 25 (as *poecilis*) ; Nakane, 1970 : 18 (as *poecilus*), *nec* Rothschild & Jordan.

Specimens examined. Twenty-two specimens were collected from Chichijima and Hahajima in almost every month.

Matsumura's record of *M. poecilum* from Ogasawara, referred to by Monzen (1951) and Nakane (1970), was probably a misidentification of this species.

***Macroglossum heliophila* Boisduval**

Specimen examined. Chichijima : date unknown, 1 ♂ (*ex* Y. Kishida).

***Theretra nessus* (Drury)**

Watanabe *et al.* (1980 : 99) recorded Chichijima.

Family ARCTIIDAE

Subfamily Arctiinae

***Hyphantria cunea* (Drury)**

Hyphantria cunea : Inoue, 1982 : 653, pl.160 : 7-11.

This north American species was accidentally introduced into Japan (Tokyo area) around 1945 and is now established in Honshu, Shikoku and Kyushu.

According to Messrs Takeuchi and Ohbayashi (*in litt.*), it was first discovered on Chichijima in 1994 and is now sedentary on the island. Apparently artificially brought from the mainland of Japan.

***Utetheisa pulchelloides umata* Jordan**

Utetheisa pulchelloides umata Jordan, 1939 : 281

Specimens examined. Chichijima : 5. vi. 1968, 1 ♂ 1 ♀ (H. Hasegawa *et al.*) ; Suzaki, 3. v. 1997, 9 exs (T. Ohbayashi), OSBTAS.

Nakane (1970: 18) recorded from Chichijima without other information. Probably not a permanent resident, but an occasional migrant from southeastern Pacific islands.

Distribution of the subspecies. Mariana Islands (Guam, Saipan), Ogasawara (Chichijima).

Subfamily Nyctemerinae

***Nyctemera adversata* (Schaller)**

Nyctemera adversata: Inoue, 1982: 658, pl. 162: 7-9.

Specimens examined. Chichijima: Komagari, 3. i. 1987, 1 ex. (S. Koyama); 16. v. 1988, 1 ex (K. Takeuchi), OSBTAS.

As in the case of the above cited species, this seems not a permanent resident of Ogasawara.

Distribution. Widespread in Indo-Malayan Region, Japan (from southwest Honshu to Ryukyu islands), Korea.

Family NOCTUIDAE (part)

Subfamily Nolinae

***Nola infralba* Inoue (Figs 8, 9)**

Nola infralba Inoue, 1976: 165, pl. 1: 24; pl. 6: 92, 93; *id.*, 1982: 663, pl. 154: 13; pl. 350: 3; pl. 352: 12.

Specimens examined. Chichijima: Omura, 30. iii. 1971, 1 ♀ (K. Suzuki); *ditto*, 24 & 27. iii. 1973, 5 ♂ 1 ♀; 2. iv. 1973, 1 ♂ (Y. Kusui); Shigure-dam, 24. vii. 1979, 2 ♂ (H. Nakajima); locality unknown, 18. i. 1996, 1 ♀ (K. Takeuchi). Hahajima: Chibusa-yama, 200 m, 17-19. viii. 1980, 1 ♀ (S.L. Montgomery), BMH.

Distribution. Honshu (Chiba, Aichi), Izu Islands (Hachijojima), Shikoku, Okinawa, Ishigakijima, Ogasawara (Chichijima, Hahajima).

Additions and corrections to the Geometridae and Pyralidae (*-marked species are new to Ogasawara)

Family GEOMETRIDAE

Subfamily Geometrinae

***Pelagodes antiquadraria* (Inoue)**

Thalassodes antiquadrarius: Inoue, 1994: 198, figs 2A-D.

Pelagodes antiquadraria: Holloway, 1996: 261.

Holloway (1996) divided *Thalassodes* sensu Prout (1912 & 1933) into three genera.

Additional specimen examined. Chichijima, ex larva, em. 29. xi. 1984, 1 ♂, reared from larva on *Schima mertensiana* (Theaceae) (T. Kumata), HUS.

***Pelagodes ogasawarensis* (Inoue) (Fig. 11)**

Thalassodes ogasawarensis Inoue, 1994: 199, figs 3A-D.

Pelagodes ogasawarensis : Holloway, 1997 : 261.

Additional specimens examined. Hahajima, 2 & 3. xi. 1994, 2 ♂ (T. Kumata), HUS.

Subfamily Sterrhinae

***Traminda aventiaria* (Guenée)**

Gnamptoloma aventiaria : Inoue, 1994 : 203.

Traminda aventiaria : Holloway, 1997 : 22, figs 5, 6, 8 ; pl.6 : 14.

***Cyclophora obrinaria* (Guenée), comb. nov.**

Anisodes obrinarius : Inoue, 1994 : 203, fig.5A.

Perixera illepidaria* (Guenée)

Anisodes illepidaria Guenée, in Boisduval & Guenée, 1857, *Hist. nat. Insectes* (Lépid.) 9 : 421 ; Prout, 1938 : 176, pl. 18 : i ; Inoue, 1982 : 444, pl. 61 : 22.

Perixera illepidaria : Holloway, 1987 : 51, fig. 95 ; pl. 3 : 21.

Specimens examined. Chichijima : Suzaki, 1. v. 1995, 1 ♀, reared from *Ficus retusa* (Moraceae) ; ditto, 17. vii. 1995, 1 ♂, reared from larva on *Litchi chinensis* (Sapindaceae) (T. Ohbayashi).

Distribution. Japan (Honshu), Taiwan, Hong Kong, Sundaland, Philippines, NE India, Philippines, Ogasawara (Chichijima).

***Perixera niveopuncta* (Warren)**

Anisodes niveopunctus Inoue, 1994 : 203, figs 5B, C.

Perixera niveopuncta : Holloway, 1997 : 57, figs 135, 138 ; pl. 2 : 26.

Subfamily Larentiinae

***Casuariclystis latifascia* (Walker)**

Eupithecia latifascia Walker, 1866, *List Specimens lepid. Insects Colln Br. Mus.* 35 : 1674.

Chloroclystis scintillata : Inoue, 1994 : 206, figs 7A-D.

Casuariclystis latifascia : Holloway, 1997 : 160, figs 516, 519, pl. 10 : 31.

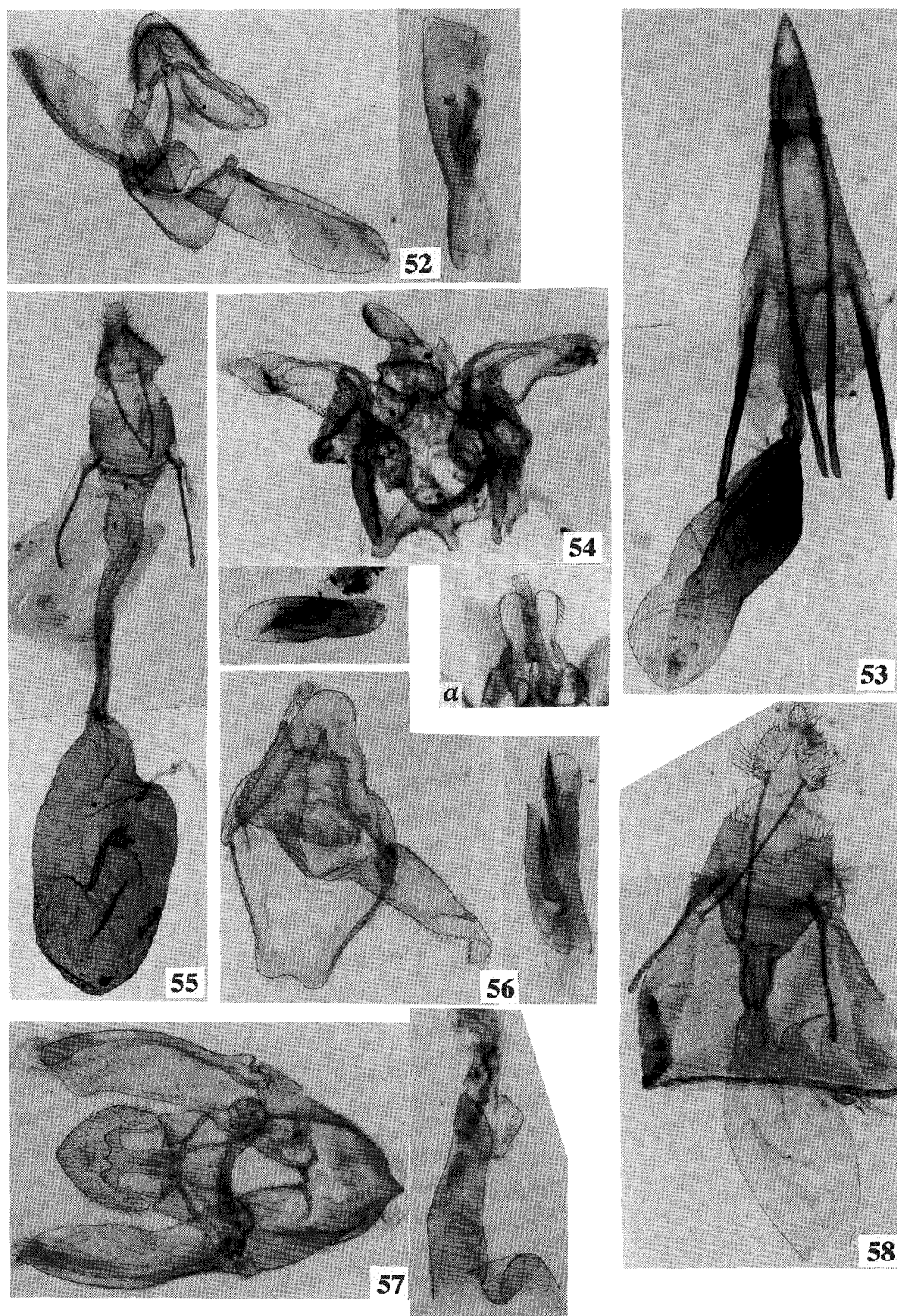
Additional specimen examined. Chichijima : 2. iii. 1995, 1 ♀ (T. Ohbayashi).

Holloway (1997) established a new genus for this species and at the same time he synonymized *Eupithecia inexplicata* Walker, 1866, *E. perceptata* Walker, 1866, *Gymnoscelis nigella* Joannis, 1906, *Chloroclystis metallicata* Fletcher, 1910 and *C. scintillata* Prout, 1932.

***Gymnoscelis subpumilata* Inoue**

Gymnoscelis subpumilata : Inoue, 1994 : 207, fig. 7E.

Additional specimens examined. Chichijima : Futako, 5. iv. 1995, 1 ♀, reared from larva on *Mangifera indica* (Anacardiaceae) ; Chibusa-yama, 15. xii. 1995, 1 ♀, reared from larva on flower of *Dendrocacalia crepidifolia* (Compositae) (K. Takeuchi). Hahajima : Hyogidaira, 15. xii. 1995, 1 ♂, reared from larva on flower of *Bidens biternata* (Compositae) (K. Takeuchi).



Figs 52-58. Male and female genitalia of Phycitinae. 52-53. *Eucampyla estriatella* Yamanaka (52. Male genitalia, HI Slide 13471; 53. Female genitalia, HUS). 54-55. *Cryptoblabe gnidiella* (Millière) (54. Male genitalia, HUS. a: uncus, ventral view; 55. Female genitalia, HUS). 56. *Microthrix inconspicua* (Ragonot), male genitalia (HI Slide 13469). 57-58. *Indomyrlea eugraphella* (Ragonot). (57. Male genitalia, HUS; 58 Female genitalia, HUS).

***Gymnoscelis boninensis* Inoue (Fig. 12)**

Gymnoscelis boninensis Inoue, 1994 : 208, figs 8A-E.

Additional specimen examined. Chichijima : 7. iv. 1995, 1 ♂ (T. Ohbayashi).

Gymnoscelis tristrigosa tristrigosa* (Butler)

Eupithecia tristrigosa Butler, 1880, *Proc. zool. Soc. Lond.* **1880** : 688.

Gymnoscelis tristrigosa : Hampson, 1895 : 390 ; Holloway, 1979, 311, pl. 59 : 4 ; Inoue, 1982 : 514, pl. 78 : 64, 65 ; Holloway, 1997 : 169.

Specimens examined. Chichijima : Komagari, 1 & 17. v. 1995, 1 ♂ 1 ♀, reared from larvae on *Pittosporum boninense* (Pittosporaceae) (K. Takeuchi).

Distribution. Ogasawara (Chichijima), Japan (Kyushu, Yakushima, Amami-Oshima, Okinawa, Kumejima), Taiwan, Philippines, Sulawesi, Sri Lanka, India, New Caledonia, Queensland, Fiji ; S India (subsp. *nasuta* Prout) ; Tonga (subsp. *tongaica* Prout).

Gymnoscelis esakii* Inoue

Gymnoscelis esakii Inoue, 1955, *Tinea* **2** : 83, pl. 6 : 13 ; *id.*, 1982 : 514, pl. 78 : 63.

Specimen examined. Chichijima : Komagari, 11. iv. 1993, 1 ♀, reared from larva on *Mangifera indica* (Anacardiaceae) (K. Takeuchi).

Distribution. Japan (Honsu, Shikoku, Kyushu, Yakushima, Amami-Oshima), Ogasawara (Chichijima).

Collix ghosha ghosha* Walker

Collix ghosha Walker, 1862, *List Specimens lepid. Insects Colln Br. Mus.* **24** : 1294 ; Prout, 1941 : 349, pl. 37 : d ; Inoue, 1982 : 517, pl. 78 : 26-30 ; Holloway, 1997 : 121, fig. 333 ; pl. 12 : 23.

Phibalapteryx ghosha : Hampson, 1895 : 348.

Specimens examined. Chichijima : Komagari, 2. iii. 1995, 1 ♀ (T. Ohbayashi) ; *ditto*, 11. xii. 1995, 1 ♀ ; 22. xii. 1995, 1 ♂, reared from larva on *Ardisia sieboldii* (Myrsinaceae) (K. Takeuchi). Anijima : 16-17. i. 1996, 2 ♀, reared from larvae on the same plant (K. Takeuchi).

The male and female genitalia of subsp. *subligata* are shown by Holloway, 1979, fig. 55.

Distribution. Ogasawara (Chichijima, Anijima), Japan (Yakushima, Amami-Oshima, Okinawa, Ishigakijima, Iriomotejima), Taiwan, India, Sundaland, Sulawesi ; New Guinea (subsp. *dichobathra* Prout) ; Queensland (subsp. *puncticulata* Prout) ; Solomon Islands (subsp. *sticticata* Warren) ; New Hebrides, Lifu, New Caledonia (subsp. *subligata* Warren).

Family PYRALIDAE

Subfamily Phycitinae

***Eucampyla estriatella* Yamanaka* (Fig. 22)**

Eucampyla estriatella Yamanaka, 1986 : 172, figs 3, 8, 15, 22.

Specimens examined. Chichijima : Omura, 16. iv. 1973, 1 ♀ (Y. Kusui). Chichijima : 27.

x. 1984, 2 ♀ (T. Kumata), HUS. Hahajima : 27. viii. 1970, 1 ♂ 1 ♀ (K. Suzuki). Hahajima : 3. xi. 1984, 3 ♀ (T. Kumata), HUS.

Male and female genitalia : Figs 52, 53.

Distribution. Japan (Shikoku, Kyushu, Amami-Oshima, Okinawa), Ogasawara (Chichijima, Hahajima).

***Cryptoblabes gnidiella* (Millière)* (Fig. 23)**

Ephestia gnidiella Millière, 1867, *Icon. Descr. Chenilles Lépid. ined.* 2 : 308, pl. 83 : 4-9.

Cryptoblabes gnidiella : Ragonot, 1893 : 16 ; Corbet & Tams, 1943 : 68, figs 22, 71, 72, 119, 156 ; Heinrich, 1956 : 10, figs 1, 132, 639 ; Zimmermann, 1972 : 433.

Cryptoblabes aliena Swezey, 1909 : 24, pl. 4 : 4-7 (fig. 59) ; Zimmermann, 1958 : 360, figs 298-300.

Specimens examined. Chichijima : Omura, 11. vii. 1973, 2 ♀ (Y. Kusui) ; Komagari, 26. ix & 3. x. 1995, 3 exs (K. Takeuchi). Chichijima : 29. x. 1984, 1 ♀ (T. Kumata), HUS. Hahajima : 27. viii. 1970, 1 ♀ (K. Suzuki) ; Okimura, 11. iv., 21. v., 11. vii. 1973, 4 exs (Y. Kusui). Hahajima : 29. x-3. xi. 1984, 7 exs (T. Kumata), HUS.

A detailed life history, with illustrations of immature stages, was described by Swezey (1909) as a pest on sugar cane. Zimmermann (1972) synonymized *aliena* with *gnidiella*. Male and female genitalia : Figs 54, 55.

This Mediterranean species has been known as a pest on fruits, dried foods and various plants and has been artificially introduced into tropical and subtropical territories of the world.

Distribution. Ogasawara (Chichijima, Hahajima) ; tropicopolitan.

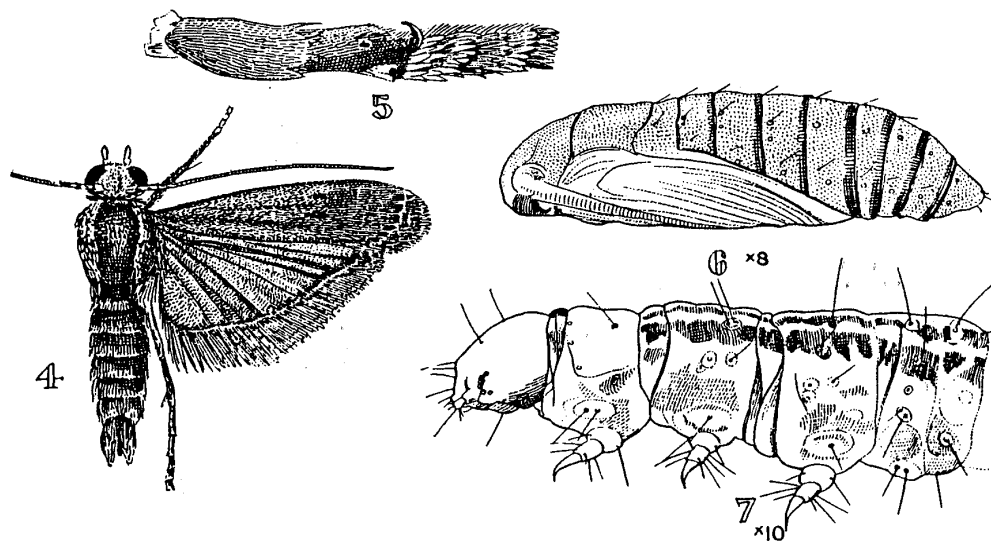


Fig. 59. *Cryptoblabes gnidiella* (Millière), moth, pupa & larva (after Swezey, 1909).

***Microthrix inconspicuell* (Ragonot)* (Fig. 24)**

Nephopteryx inconspicuell Ragonot, 1888, *Nouv. Genres Espèces Phycititidae Galleridae* : 17.

Microthrix inconspicuell : Ragonot, 1893 : 324, pl. 13 : 17 ; Hampson, 1896 : 76, fig. 51 ; Balinsky, 1994 : 116 (misspelt as *inconspicullalla*), figs 117, 192, 313, 454, 522 ; Yamamaka, 1998 : 112.

Selagia manoi Yamanaka, 1993, *Tinea* 13 : 221, figs 1, 5, 7, 11.

Specimen examined. Chichijima : Omura, 19. iv. 1972, 1 ♂ (Y. Kusui).

Balinsky (1994) illustrates the genitalia and other structural characters. Recently Yamanaka (1998) treated his new species as a junior synonym. Male genitalia : Fig. 56.

Distribution. Ogasawara (Chichijima), Japan (Yamaguchi), India, Myanmar, Nepal, Africa.

***Indomyrleae eugraphella* (Ragonot)* (Fig. 25)**

Nephoteryx eugraphella Ragonot, 1888, *Nouv. Genres Espèces Phycitidae Galleridae* : 15 ; *id.*, 1893 : 281, pl. 9 : 14 ; Hampson, 1896 : 77.

Salebria pleurosaris Meyrick, 1932, *Exot. Microlepid.* 4 : 232.

Salebria iriditis Meyrick, 1933, *op. cit.* 4 : 387.

Indomyrleae eugraphella : Roesler & Küppers, 1979 : 121, pl. 12 : 22.55a, b ; pl. 23 : 22.55 ; pl. 33 : 22.55 ; Roesler, 1983 : 56, pl. 22.55.

Specimens examined. Chichijima : Komagari, 11. xii. 1995, 1 ♀ ; 15. i. 1996, 1 ♀ (K. Takeuchi). Hahajima : near Chibusashindo-iriguchi, 27. vii. 1979, 1 ♀ (H. Nakajima). Hahajima : 3. xi. 1984, 1 ♂ 3 ♀ (T. Kumata), HUS.

For food plants of this species Hampson (1896) enumerates cured tobacco and *Mimusops elengi* (Sapotaceae) and Meyrick (1933) (*S. iriditis*) lists *Clerodendron serratum* (Verbenaceae). Male and female genitalia : Figs 57, 58.

Indomyrleae Roesler & Küppers, 1979, was established for three Indo-Malayan species including the present one.

Distribution. Ogasawara (Chichijima, Hahajima), India, Sri Lanka, Peninsular Malaysia, Sumatra, Java.

***Faveria leucophaeella* (Ragonot) (Fig. 21)**

Oligochroa atratella : Inoue, 1996a : 81, fig. 5A.

Faveria leucophaeella : Shaffer, Nielsen & Horak, 1996 : 176 ; Horak, 1997 : 356, figs 16, 38-40, 56, 57.

Oligochroa Ragonot, 1888 and two other genera established by the same author in 1893 were considered to be junior synonyms of *Faveria* Walker, 1859 by Shaffer, Nielsen & Horak (1996).

Subfamily Musotiminae

***Musotima kumatai* Inoue (Figs 30, 31)**

Musotima kumatai Inoue, 1996a : 86, fig. 8A.

Additional specimens examined. Chichijima : Mt Kohiyama, 15. iii. 1993, 2 ♂ 1 ♀ (Ueda & Okochi), FFPRI.

This species was described from a single male, but it has now become clear that the colour and maculation is extremely variable as shown here.

Male genitalia (Fig. 60). Valva smoothly margined, narrower than in *M. colonialis* (Bremer), dorsal margin rounded, aedeagus more slender than in *colonialis*.

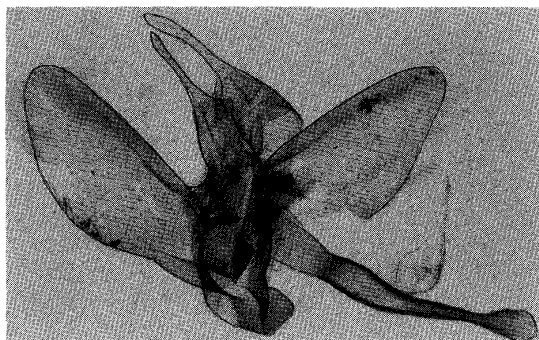


Fig. 60. *Musotima kumatai* Inoue, male genitalia (FFPRI).

Subfamily Pyraustinae

Eurrhparodes tricoloralis* (Zeller)

Botys tricoloralis Zeller, 1852, *K. Vet-Ak. Handl.*: 31.

Eurrhparodes tricoloralis: Hampson, 1896: 264; Robinson, Tuck & Shaffer, 1994: 182, pl. 30: 9.

Specimen examined. Chichijima: Komagari, 12. x. 1995, 1 ♀ (T. Ohbayashi).

My identification of this species is tentative, because our knowledge about the *E. bracteolalis* (Zeller)-complex is still very poor.

Distribution. Ogasawara (Chichijima), Taiwan, Thailand, India, Sri Lanka, Andamans, Philippines, New Guinea, Solomon Islands, Africa.

***Palpita munroei* Inoue**

Palpita sp.: Inoue, 1996a: 103.

Palpita munroei Inoue, 1996b: 35, figs 27, 66, 104, 139.

***Cnaphalocrocis poeyalis* (Boisduval)**

Marasmia poeyalis: Inoue, 1996a: 92, figs 12A, B; 13A, D.

Cnaphalocrocis poeyalis: Shaffer, Nielsen & Horak, 1996: 199.

Cnaphalocrocis pilosa* (Warren), **comb. nov.*

Marasmia pilosa: Inoue, 1996a: 93, figs 12C, D; 13B, E.

Cnaphalocrocis stereogona* (Meyrick), **comb. nov.*

Marasmia stereogona: Inoue, 1996a: 95, figs 12E, F; 13C, F.

***Nacoleia gressitti* Inoue (Fig. 40)**

Nacoleia gressitti Inoue, 1996a: 100, figs 16B, 18.

Additional specimens examined. Chichijima: 30. ix., 2. x., 5. xi. 1995, 3 ♀ (K. Takeuchi).
Hahajima: Mt Kuwanoki, 3. iii. 1996, 4 ♂, 2 ♀ (I. Okochi), FFPRI.

Corrections

1996a, p. 91, line 10 from bottom. **Aripara**, read **Arippara**.
 ———, p. 99, line 13 from bottom. **Metasis**, read **Metasia**.

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摘 要

小笠原諸島のマダラガ科, マドガ科, イラガ科, ツバメガ科, スズメガ科, ヒトリガ科およびコブガ亜科 (ヤガ科) ならびにシャクガ科とメイガ科の追加 (井上 寛)

小笠原諸島のハマキガ科 (川辺・楠井, 1978), シャクガ科 (井上, 1994) およびメイガ科 (井上, 1996) は既に公表されたので, 本報は第4報となる。

Artona (Balataea) martini Efetov タケノホソクロバ: 本種と *A. funeralis* (Butler) ヒメクロバについては杉 (1997) を参照されたい。本土から食草と共に移入されたものである。 *Hyblaea puera* (Cramer) キオビセセリモドキ: 大林隆司氏によって父島でクマツヅラ科のハマゴウで幼虫が発見された。杉 (1982, 蛾類大図鑑, pl. 35 : 14) の写真は父島産の雌である。 *Banisia myrsusalis elaralis* (Walker) ヒメシロテンマドガ: 父島と母島でそれぞれ1♀がとれているにすぎず, 本土では屋久島産の1♀しか知られていない (井上, 1982 : 304)。 *Banisia whalleyi* Inoue コシロテンマドガ (新称): 父島と母島に多産する特産種。 *Belippa boninensis* (Matsumura) オガサワライラガ: 父島と母島に多産する特産種で, 新属 *Contheyloides* のもとに記載されたが, この属を本文で *Belippa* のシノニムにした。 *Gathynia fumicosta islandica* Inoue アトキフタオの小笠原亜種: 原名亜種とちがって極めて変異性に豊んでいる。父島と母島に多産。スズメガ科は, エビガラスズメ, キョウチクトウスズメ, ホシホウジャク, イチモンジホウジャク, キイロスズメの5種がとれているが, 確実に土着しているものが此のうちどれかはっきりしていない。 *Utetheisa pulchelloides umata* Jordan ベニゴマダラヒトリのミクロネシア亜種: 土着性はあやしい。 *Hyphantria cunea* (Drury) アメリカシロヒトリ: 竹内・大林両氏によると, 父島で1994年に発見され, 以来定着してしまっただけ。 *Nyctemera adversata* (Schaffer) モンシロモドキ: 父島で2頭とれただけで土着しているかどうかわからない。 *Nola infranigra* Inoue シタジロコブガ: 父島と母島には土着しているようである。

シャクガ科の追加。 *Pelagodes antiquadraria* (Inoue) オオサザナミシロアオシャク: 第2報で既に記録したが, 久万田博士が父島でヒメツバキ (ツバキ科) を食べている幼虫から羽化させた1♂を検することができた。 *Perixera illepidaria* (Guenée) コブウスチャヒメシャク: 大林氏によってガジュマル

(イチジク科) とレイシ (ムクロジ科) で幼虫が飼育され 1 ♂ 1 ♀ の成虫がえられた。本州でわずしか得られていない珍種 (井上, 1982: 444). *Gymnoscelis subpumilata* Inoue ホソバチビナミシャクは第 2 報で記録したが, 竹内氏によってマンゴウ (ウルシ科), ワダンノキおよびセングングサ (以上キク科) から父島と母島で幼虫が発見された。 *Gymnoscelis tristrigosa tristrigosa* (Butler) トベラクロスジナミシャク: これも第 2 報で記録した種だが, シロトベラ (トベラ科) で竹内氏が幼虫を飼っている。沖縄県ではオキナワトベラが食草として知られている (井上, 1982: 514). *Gymnoscelis esakii* Inoue ケブカチビナミシャク: 竹内氏はマンゴウ (ウルシ科) から幼虫を得て成虫を出している。 *Collix ghosha ghosha* Walker オオサビイロナミシャク: 大林氏によって父島でモクタチバナ (ヤブコウジ科) で, 竹内氏によって兄島で同じ植物から幼虫が飼育された。

メイガ科の追加。 *Eucampyla estriatella* Yamanaka シロチビマダラメイガ: 四国・九州・奄美大島・沖縄本島から記載された種で, 父島と母島でとれている。 *Cryptoblabes gnidiella* (Millière) ネットイマダラメイガ (新称): 地中海地方が原産と推定され, 幼虫が果実, 干果などにつくところから, 人為的に世界の熱帯圏に運ばれ土着してしまった。 *Microthrix inconspicuellae* (Ragonot) サビイロマダラメイガ: 山口県を基産地とする *Selagia manoi* Yamanaka, 1993 は同じ著者 (1998) によって *M. inconspicuellae* のシノニムとされた。アフリカからインド, ネパール, 日本 (本州) などに広く分布する。 *Indomyrtae eugraphella* (Ragonot) シロフタスジマダラメイガ (新称): 東南アの広分布種で, 父島と母島で 7 頭とれている。Hampson (1896) は乾燥タバコと *Mimusops elengi* (アカテツ科) を食草とし, Meyrick (1933) はジャワから今はシノニムとされている *Salebria iriditis* という新種を書いたとき食草としてクサギ属 (クマツヅラ科) と名称不明の果物を挙げている。 *Musotima kumatai* Inoue クマタミズメイガは母島産の 1 ♂ で第 3 報で記載したが, 父島でとれた 2 ♂ 1 ♀ を検した結果, 色彩斑紋に大きな変異のあることがわかった。 *M. colonalis* (Bremer) ウスキミズメイガに近縁だが, 外観ばかりではなく雄交尾器の形態にも明確なちがいがあ。 *Eurrhyarodes tricoloralis* (Zeller) オオアヤナミノメイガ (新称): 父島でとれた 1 ♀ にこの種名を当てはめたが, アヤナミノメイガの仲間はまだ十分に種の解析が行われていないので (井上, 1982: 332), 将来学名が変更されるかもしれない。 *Palpita munroei* Inoue オオモンヒメシロノメイガ: 第 3 報では種名未定で記録したが, この属については Inoue (1996b) の論文で詳しく書いたのをそれを参照されたい。

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